

Title (en)

LOW TEMPERATURE METHOD AND SYSTEM FOR FORMING FIELD JOINTS ON UNDERSEA PIPELINES

Title (de)

NIEDRIGTEMPERATURVERFAHREN UND -SYSTEM ZUR FORMUNG VON FELDERBINDUNGEN AUF UNTERWASSER-PIPELINES

Title (fr)

PROCÉDÉ ET SYSTÈME BASSE PRESSION PERMETTANT DE FORMER DES JOINTS DE MONTAGE SUR DES CONDUITES SOUS-MARINES

Publication

EP 2606271 A4 20160608 (EN)

Application

EP 11789029 A 20110602

Priority

- US 79440210 A 20100604
- CA 2011050334 W 20110602

Abstract (en)

[origin: US2011297316A1] A method for forming a field joints between sections of coated or insulated pipe which are to be welded together and incorporated into an undersea pipeline for carrying single or multi-phase fluids such as oil, gas and water. The method includes the application of a liquid epoxy layer which overlaps a lip of the factory-applied FBE coating protruding beyond a chamfered end of the factory-applied insulation layer, and which may be applied over the entire weld joint area. The liquid epoxy layer is partially cured by application of heat, and a layer of powdered adhesive is applied onto the partially cured liquid epoxy layer. The adhesive is subsequently sintered and activated by application of heat to its outer surface. The outer surfaces of the adhesive layer and the chamfers are then preheated and the thermal joint insulation is injection molded over the entire joint area. Throughout the entire method the temperature of the factory-applied FBE coating is maintained below its glass transition temperature so as to avoid weakening the bond between the FBE coating and the underlying steel pipe. The number and sequence of steps can be varied, depending at least partly on whether the liquid epoxy and adhesive layers are applied in a pipe coating facility or in the field.

IPC 8 full level

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CPC (source: EP US)

B29C 45/14336 (2013.01 - EP US); **B29C 45/14598** (2013.01 - EP US); **F16L 58/181** (2013.01 - EP US); **F16L 59/20** (2013.01 - EP US); **B29C 2045/14877** (2013.01 - EP US); **Y10T 29/49888** (2015.01 - EP US)

Citation (search report)

- [XA] US 2009159146 A1 20090625 - JACKSON PETER [CA], et al
- [XA] US 2010043906 A1 20100225 - JACKSON PETER [CA], et al
- [A] EP 1384931 A1 20040128 - STUCKE WALTER [DE]
- [A] GB 2462149 A 20100203 - PIPELINE INDUCTION HEAT LTD [GB]
- See references of WO 2011150520A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

US 2011297316 A1 20111208; **US 8857700 B2 20141014**; AR 084392 A1 20130515; AU 2011261132 A1 20121213; AU 2011261132 B2 20141009; BR 112012030876 A2 20161108; CA 2800370 A1 20111208; CA 2800370 C 20180501; EP 2606271 A1 20130626; EP 2606271 A4 20160608; MX 2012014039 A 20130215; MY 163045 A 20170731; WO 2011150520 A1 20111208

DOCDB simple family (application)

US 79440210 A 20100604; AR P110101956 A 20110606; AU 2011261132 A 20110602; BR 112012030876 A 20110602; CA 2011050334 W 20110602; CA 2800370 A 20110602; EP 11789029 A 20110602; MX 2012014039 A 20110602; MY P12012005040 A 20110602